

## **REMARKS**

Applicants have received the Office Action dated September 19, 2007, in which the Examiner: 1) lodged a restriction requirement between Group I (claims 1-11), Group II (claims 12-29, 38-41 and 46) and Group III (claims 30-37 and 42-45); 2) objected to the Title; 3) rejected claims 1-2, 8 and 10-11 as allegedly obvious over Zhang (U.S. Pat. No. 7,251,713, hereinafter "Zhang"); 4) rejected claims 3 and 4 as allegedly obvious over Zhang and Golding (U.S. Pat. No. 6,477,617); 5) rejected claims 5 as allegedly obvious over Zhang, Golding and Olson (U.S. Pat. No. 5,479,628); 6) rejected claims 6-7 as allegedly obvious over Zhang and Garg (U.S. Pat. No. 7,266,645); and 7) rejected claim 9 as allegedly obvious over Zhang and the IEEE dictionary definition of API.

With this Response, Applicants amend claims 1 and 2, and cancel claims 12-46). Reconsideration is respectfully requested.

### **I. RESTRICTION REQUIREMENT**

With this Response, Applicants confirm the election to prosecute Group I (claims 1-11) without traverse. Moreover, Applicants cancel the non-elected claims (claims 12-46) without prejudice to later asserting those claims, such as in a divisional application.

### **II. NEW TITLE**

With this Response, Applicants propose the following new Title:

Communication-Link-Attached  
Persistent Memory System With Mirrored Storage

### **III. ART-BASED REJECTIONS**

All the claims stand rejected, in whole or in part, over Zhang. Applicants amend claim 1 to more clearly define over Zhang's RAID-type storage system.

Zhang is directed to a system and method to transport data snapshots. (Zhang Title). In particular, Zhang is directed to a storage system for large block-level (*i.e.*, multiple-bytes in every read/write) data storage devices.

Each of the data storage units may include a plurality of data storage devices, such as a redundant arrays of inexpensive disks (RAID). Other types of storage media and devices may also be used, such

as optical disks, optical tape, magnetic tape, magnetic diskettes, solid state memory, or any other suitable storage medium.

(Zhang Col. 3, lines 47-52). Zhang is silent as to direct memory access (DMA) or remote (RDMA).

Claim 1, by contrast, specifically recites, “a primary network persistent memory unit (nPMU) comprising: a network interface communicatively coupled to at least one client processor node over a remote direct memory access (RDMA) enabled communication system; ... said primary nPMU executes single byte RDMA requests directed to the primary region, the single byte RDMA requests received through the network interface.” Applicants respectfully submit that Zhang fails to expressly or inherently teach such a system. Zhang is directed to block-level transfers of data, and fails to even mention direct memory access much less DMA at byte-level granularity. Thus, Zhang fails to expressly or inherently teach “said primary nPMU performs single byte RDMA requests directed to the primary region, the single byte RDMA requests received through the network interface.”

Based on the foregoing, Applicants respectfully submit that claim 1, and all claims which depend from claim 1 (claims 2-11), should be allowed. Applicants amend claim 2 to remove wording not needed to define over the cited art.

#### **IV. CONCLUSION**

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents

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accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,

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